# **ASM170 Auto Start Module**



## **ASM170**

- Ideal for all basic auto-start/stop
- Programmable Multifunction Output
- **■** Extended Operating Temperature Range
- **■** Excellent Low Voltage Performance
- Compact Size Retrofits Existing ASM150 Installations
- Built-In Manual-Off-Auto Toggle Switch
- Smart FET Outputs

## **Description**

The **ASM170** is a compact yet powerful engine auto-start module. It offers flexibility and features normally found in much larger and more expensive units. Its high density MOLEX plug makes it ideal for panel builders. It can also be easily replaced in the field if problems should arise.

With the on-board Manual-Off-Automatic switch, Panel wiring is greatly simplified.

Its unique design also allows it to draw virtually no current in standby mode, yet be able to auto-start based on a sustained or momentary contact closure.

#### **Features**

The ASM170 is typically used in generator applications but can be applied anywhere a basic auto-start operation is required. Basic functions include engine crank/rest, crank disconnect, overspeed, low oil pressure, high engine temperature, low levels and spare shutdowns. The start signal to the controller can be momentary or sustained.

It also has a multifunction output that can be selected to perform one of the following functions:

- Glowplug
- Warmup/Cooldown
- Warmup
- Cooldown
- Choke
- Air Damper Shutoff

## **Specifications**

#### **Power Input:**

6 to 28 VDC.

## **Power Consumption Standby:**

<1 mA.

#### **Operating Temperature:**

-40 to 185 °F (-40 to +85 °C).

#### Inputs:

Ground or positive inputs for high temperature, low oil pressure, High/Low Level, Auxiliary/Remote Stop sensors.

#### **Lamp Test:**

When unit is powered up in Manual or Auto, the LED's light for 1 second as a test.

#### **Outputs:**

5A smart FET for cranking and multifunction output. 10A smart FET for Fuel Valve (Energized to Run) output. All 3 supply battery "+". 125 mA transistor for common failure, engine run, and auxiliary output. (Sink to battery "-")

#### **Crank Attempts:**

Selectable for 3, 5, 10, or 255.

#### **Crank/Rest Cycle Timing:**

Field adjustable 1 to 30 seconds.

#### **Multifunction Output:**

Field programmable to one of the following options: Glowplug, Cooldown, Warmup/Cooldown, Warmup, Air gate – Overspeed Only, Air gate – Always, Choke, or Auxiliary Run output.

#### **Shutdown Lockout Time Delay:**

Field adjustable 1 to 300 seconds. Locks out low oil pressure, high temperature, and loss of speed shutdowns on start-up.

## **Crank Disconnect Speed Setting:** From 13 to 2500 Hz.

Overspeed Trip Point Setting:

From 13 to 8500 Hz.

#### **Speed Sensing Input:**

1.5VAC RMS to 140 VAC RMS.

#### **Shipping Weight:**

1 lb. (.45 kg.)

#### **Shipping Dimensions:**

6.25 x 6.25 x 4.5 in. (159 x 159 x 114 mm).

## For the OEM

The ASM170 was designed with the OEM in mind. Each unit comes standard with a programming header easily accessible from the rear of the unit. Through this header, the OEM can upload specific operating parameters normally controlled with the DIP switch and Potentiometers directly into the controller. This way the exact settings required by the OEM will be programmed and the DIP switch and Potentiometer settings will be ignored.





**CAUTION:** Certain danger to human and to equipment such as applied in a mobile or marine application may occur if some equipment is stopped without pre-warning. It is therefore, recommended that monitored functions be limited to alarm only or to alarm before shutdown in such applications.

#### **How to Order:**

ASM170	00009126 ASM170 Standard with Toggle Switch
ASM170-LT	00009347 ASM170 without Toggle Switch
ASM170-LT160	40700252 ASM160 Replacement Kit  INCLUDES: 40000168 Drilling Template with terminal block and wire harness 00009347 ASM170 without Toggle Switch

NOTE: P/N 40000138 connector and 4 ft. wire harness must be ordered separately if required.

### Warranty

A limited warranty on materials and workmanship is given with this FW Murphy product. A copy of the warranty may be viewed or printed by going to www.fwmurphy.com/support/warranty.htm



**FW Murphy** P.O. Box 470248 Tulsa, Oklahoma 74147 USA +1 918 317 4100 fax +1 918 317 4266 e-mail sales@fwmurphy.com www.fwmurphy.com

#### **CONTROL SYSTEMS & SERVICES DIVISION**

P.O. Box 1819; Rosenberg, Texas 77471; USA +1 281 633 4500 fax +1 281 633 4588 e-mail sales@fwmurphy.com

#### MURPHY DE MEXICO, S.A. DE C.V.

Blvd. Antonio Rocha Cordero 300, Fracción del Aguaje San Luis Potosí, S.L.P.; México 78384 +52 444 8206264 **fax** +52 444 8206336 Villahermosa Office +52 993 3162117 e-mail ventas@murphymex.com.mx www.murphymex.com.mx

#### FRANK W. MURPHY, LTD.

Church Rd.; Laverstock, Salisbury SP1 1QZ; U.K. +44 1722 410055 fax +44 1722 410088 e-mail sales@fwmurphy.co.uk www.fwmurphy.co.uk

## MURPHY SWITCH OF CALIFORNIA

41343 12th Street West Palmdale, California 93551-1442; USA +1 661 272 4700 fax +1 661 947 7570 e-mail sales@murphyswitch.com www.murphyswitch.com

#### **MACQUARRIE CORPORATION**

1620 Hume Highway Campbellfield, Vic 3061; Australia +61 3 9358 5555 fax +61 3 9358 5558 e-mail murphy@macquarrie.com.au

